

WHAT IS CLAIMED IS:

1. An optical memory, comprising:

(a) an optical disk comprising a material in which a
5 holographic grating can be created at plural locations within
the disk, wherein the holographic grating represents a stored
data element;

(b) an electro-optical head capable of creating the
holographic grating at any one of the plural locations within
10 the disk via a beam of light.